

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE'S ENVIRONMENT PROGRAM IN CAMBODIA:

An Assessment of the First Two Years

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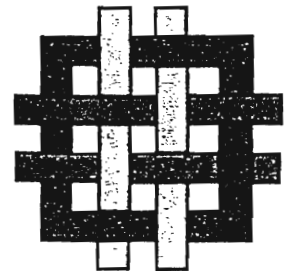


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Cover: Building research capacity for environmental policy development,
Baset Lake Project.

I. Purpose of this Report

This document provides a preliminary assessment of the first two years of the International Development Research Center of Canada's (IDRC's) environment program in the Cambodian Ministry of Environment (MOE).

The report presents a review of the activities of the IDRC environment program within the context of: i) the priority needs and responsibilities of MOE, and ii) the research mandate of IDRC's Cambodia program. It will attempt to provide context to the overall strategy of the program and the specific research and project level activities.

The report will provide a brief background of the historical and institutional context of the MOE and IDRC's environmental policy advisor program. It will then describe the rationale and the main elements for the program's strategic approach. A preliminary assessment of the general program based on the context of the unique and difficult circumstances of working in Cambodia will follow. This section of the report will look at the linkages between the Environmental Policy Advisor support, research, and project activities to date, the Cambodia IDRC program, and the mandate and needs of the Ministry of Environment. Some key initial problems and key constraints that have been encountered will be identified. Finally, some preliminary ideas and options to consider relating to next steps and future directions for the IDRC program will be considered. There are two annexes at the end of the document that provide a general framework for assessing the activities of the IDRC environment program (Annex I) and provide greater detail on project level activities (Annex II).

This report does not represent a full-scale evaluation of IDRC's environment program in the Ministry of Environment (MOE). Rather it serves two basic purposes. First, it provides an initial external review and preliminary assessment of the IDRC environment program at the MOE. Second, this assessment offers an information base and external perspective of the IDRC policy support program for the benefit of other donor and executing agencies who wish to lend their support to the MOE.

This assessment is based on a review of IDRC and MOE documents and interviews and discussions with a broad spectrum of Cambodians and expatriates who have worked in Cambodia's nascent environmental policy arena. This report builds on the author's general familiarity with the program's work and the results to date of the IDRC program.

II. The Challenge of Environmental Policy-Making in Cambodia

At present Cambodia is endowed with an exceptional natural resource base, low population and minimal pollution due to the low level of industrialization. This situation stands in contradistinction to other countries in the region such as Thailand, Vietnam and China which have experienced widespread environmental degradation in the form of rampant deforestation, siltation of river systems and soil loss, and air and water pollution in urban centers.

If managed wisely, Cambodia's natural resources could greatly assist the country in its immediate rehabilitation efforts and in its sustained economic growth. This capacity,

however, is being threatened by the rapid expansion of the Cambodian economy that is being fueled largely by the unregulated exploitation of its natural resources. Any advantage that Cambodia presently enjoys from its abundant natural resources will be lost unless safeguards are put in place to allow economic development while ensuring the sustained quality of the environment and resource base.

Cambodia is at a crossroads. It is currently experiencing some of the highest deforestation rates in the world. Its forest cover has been reduced from over 70% to approximately 40% in the last twenty years and rates of loss are accelerating. This disturbing trend is already having a negative impact on the country's crucial water resources, agricultural production and local climate systems. Destructive gem exploitation and other mining practices, the over-exploitation of the inland fisheries and the increase in air and water pollution all threaten to undermine agricultural productivity and consequently the Cambodian economy over the long term.



Figure 1: Mangrove forests are cut and reduced to charcoal for export

The country's leaders must address this environmental and resource management challenge. The choice is either preventative management or reactive management. Most countries in the region, whose economies have surged ahead in recent years, chose to put economic growth as their main priority with little regard for the consequences downstream. These countries are now forced to react to various environmental crises which are proving to be far more costly to address than would have been the case if preventative measures had been taken in the first place.

The Royal Government of Cambodia created a Ministry of Environment in July 1993 to redress the previous destruction of institutions responsible for and capable of managing the country's resources. The rebuilding of an effective environmental ministry requires physical materials, trained personnel, the formulation of appropriate laws and regulations, and monitoring and enforcement capabilities. It also demands inter-governmental structures and mechanisms for the development of environmental policies and coordination for their implementation.

These conditions and resources are not presently in place in Cambodia. Worldwide, the protection of the environment both as a discipline and as an area of government intervention began roughly twenty years ago when Cambodia was entering its period of extreme isolation and destruction of human capital.

It is therefore not surprising that the Cambodian Government is lacking such capabilities. Cambodia, now embarking on rapid economic development, has the opportunity to adopt a comprehensive environmental policy framework, develop an effective workforce with the

means and mandate to implement policies, and design a set of management techniques and technologies not available to other countries twenty years ago.

It is well understood that the economic development of the country is a high priority for Cambodia. The development process has begun in earnest over the last two years. The task of the Ministry of Environment is not to be an obstacle to economic growth, but rather to act as a partner in promoting sustainable development. It can thereby ensure that the country's rich natural resources that provide much of the basis for its economic development are managed in a sustainable manner.

To this end, the Ministry of Environment needs to build its capacity to assess the condition of Cambodia's environment, identify critical issues, and develop appropriate priorities, policies, and projects. To carry out this mandate, it must effectively work with other central and line ministries as well as the burgeoning private sector. To fulfill its mandate, the Ministry must integrate environmental considerations into the nation's mainstream economic and social planning, decision-making and implementation. This is a challenge that is shared by all countries, north and south, but is particularly difficult for a country that has just emerged from the maelstrom of twenty years of war, civil strife, and isolation.

III. IDRC's Environmental Program in Cambodia

A. Genesis of the IDRC Environmental Policy Advisor Program

IDRC began to work in Cambodia in late 1992, when the Senior Program Officer responsible (Andrew McNaughton) collaborated with the Food and Agriculture Organization (FAO) and the International Rice Research Institute (IRRI) to organize a national workshop on environment and integrated pest management. Gregory Woodsworth, a Canadian national with previous professional posts with the Canadian Department of Environment, FAO, CIDA, and at UNDP on the Global Environmental Facility (GEF), was hired by IDRC to help coordinate this workshop.

Afterwards, he was seconded to the Wildlife Protection Office of the Ministry of Agriculture, the agency most closely aligned with the functions of environmental management. In May of 1993, Dr. Mok Mareth, the Secretary of State for the State Secretariat for Environment (SSE, the precursor to the MOE) requested that IDRC reassign Mr. Woodsworth to the new environmental agency. This suggestion, which paralleled the newly-elected government's request to the United Nations for financial and technical assistance, was met by IDRC and the eighteen-month Phase I of the Environmental Policy Advisor (EPA) program began.

As envisioned by Dr. Mok Mareth and IDRC, the EPA program would be of immediate and on-going benefit to the agency staff. As stipulated in the terms of the agreement, the EPA's overall mission was to help Dr. Mok Mareth and his staff meet the agency's critical organizational needs: defining the new agency's structure, determining its overall mandate and responsibilities, and devising its first organizational work plan. An integral part of this work involved coordinating with international donors. In addition, the Environmental Policy Advisor was charged with developing IDRC's own environmental program in Cambodia which was to consist of a series of strategic project-level activities, focussed on building capacity to carry out policy-oriented research.

As was to be expected given the infancy of environmental management in Cambodia, the nature of the EPA program steadily evolved during the eighteen-month course of Phase One. The increasing stability of the government has allowed for policy decisions to be made and public and private institutions related to environmental planning and management are beginning to emerge.

Although the MOE retained the same basic leadership, structure, and personnel, its elevation to ministerial status in the fall of 1994 represented a significant advance in the body's authority and mission. The EPA program was revised accordingly, a transition marked by the termination of Phase I in October of 1994 and the inauguration of Phase II -- currently slated to last through March of 1995.

B. Rationale for a Strategic Approach: The Current Program

The IDRC environment program within the MOE (there are IDRC-supported projects with environmental dimensions in other ministries) in Cambodia is comprised of the provision of an institution specialist (Senior Policy Advisor) and a complementary set of research-oriented, capacity-building activities. These projects are intended to serve as vehicles in the development of Cambodia's overall policy-making capacity (especially in terms of technical matters, information management and research, and institutional relations). They have also provided for the exploration of larger policy issues relating to such areas as waste management, economic development, and environmental tourism.

As these projects have come on-line, the Environmental Policy Advisor's role has been affected. Coupled with his own program's increasing project-related responsibilities, IDRC's expanded project portfolio has caused his role to expand from that of primarily advising on policy to substantial project managing. Considerable portions of his time are spent in assisting a number of environmental projects, particularly at the front end in project design, and developing an appropriate institutional framework for project management. The program attempts to ensure that the experiences and insights gained from environment-related projects are incorporated into other environment and natural resource management initiatives and with identifying future project opportunities, including the participation of other donors.

While simple enough in principle, these tasks, taken cumulatively, represent an enormous challenge. There is little capacity in the Cambodian government as a whole to develop a policy or institutional framework for natural resource and environmental management. The area of integrated natural resource and environmental management is a relatively new field in itself and Cambodians have not been previously exposed to this discipline.

Environmental policy cannot be developed and promulgated by a single ministry. The Ministry of Environment can no more afford to unilaterally promote a national policy on water management, for example, than can the Department of Hydrology, the Department of Fisheries, or the Ministry of Transport. Balanced resource management policy is a reflection and resolution of competing interests of resource use and conservation. As well, policies must be based on a solid information base that reflects the perspectives and priorities of a range of governmental and private sector interests.

There is no precedent within the Cambodian government for inter-ministerial collaboration on multi-sectoral management issues, nor a reasonable data base on which to base

assumptions or conclusions. Neither is there a "research culture" which values the process of problem formulation, information collection, analysis, and recommendation. Environmental or resource management problems are frequently addressed in the first instance by the passage of legislation or decrees. This is often done in the absence of a policy (which cannot be formulated in absence of information); nor are the institutional mechanisms developed to have the policy or legislation recognized at the national level.

historically/culturally what has been the process for inter-sectoral decisions or coordination?

Some donors have made the error of forcing a dialogue between ministers in an attempt to impose a rational resource management policy and institutional framework. As there is little qualitative technical or substantial information that the ministers can discuss or debate, the common elements at stake become those of power, authority, and jurisdiction, none of which any minister is very willing to compromise.

Therefore, IDRC's approach has included three strategic elements:

- First, it provides substance to an evolving policy framework by linking the policy-making process to lessons learned from field-level, operational projects designed as "scoping" research related to specific components of the MOE mandate. An appropriate mix of project-level activities not only builds research and technical capacities within the Ministry, but feeds directly into the policy and institutional development issues in a substantive, on-going manner.
- Second, the program is broad-based. It has not specialized in one area of capacity building or support to environmental management, e.g., information management, legislation, or environmental impact assessment. Rather, it has attempted from its inception to address simultaneously a wide range of issues that together lead to a balanced development of an environmental policy and management framework.
- Third, one of the main elements of the strategy is to make external expertise available to the Ministry staff on a day-to-day basis over the long term for reasons of the MOE's relatively low absorptive capacity. External advisors (often relatively junior -- graduate student level personnel) function as team leaders and role models for mid-level MOE staff who often lack exposure to the kind of entrepreneurial behavior required to conceive, plan, and carry out operational activities.

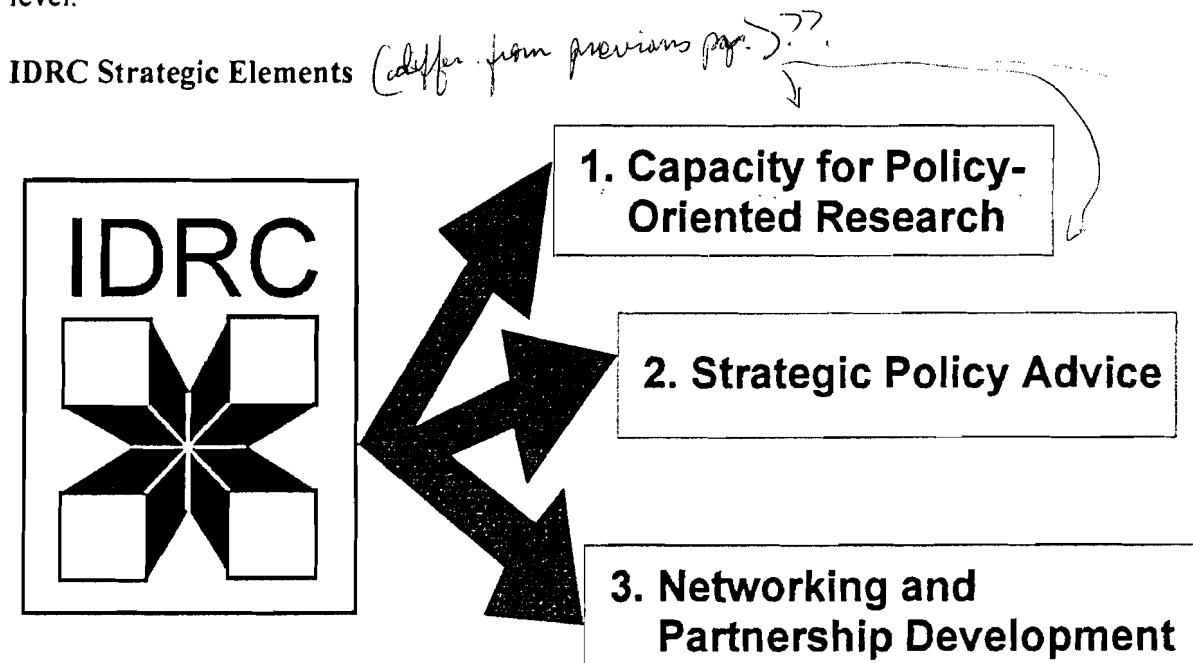
This last element is particularly germane to the institutional and human resources setting in Cambodia. Contrary to most other countries, there is little or no indigenous capacity to undertake either environmental policy development or related research in Cambodia. Several donors in Cambodia have provided more traditional forms of development assistance by relying on short-term and expensive "experts" who fly in and out of the country often without leaving lasting contributions in terms



Figure 2: MOE staff and IDRC advisor review data at the Baset Field Research Station.

of constructive institutional impacts. IDRC's program approach has been to build a basis for indigenous research capacity within the MOE and partner institutions. This has required recruiting long-term expatriate support who provide the Ministry staff with on-going assistance on a variety of project-related activities. Each of these consultants, whose contributions are managed and coordinated by the EPA, works closely with counterpart MOE staff so as to provide a day-to-day, capacity-building mechanism for human resource development.

This overall program approach is provided in Annex I which provides a categorization and accompanying selective listing of some of the activities undertaken within the Ministry of Environment since its creation in June 1993. Annex II lists the projects funded by IDRC during the same period. There is an obvious overlap between the two lists at the project level.



The IDRC program of support to environmental policy development in Cambodia has three strategic elements:

1. Capacity-building for MOE and other ministries' staff, policy-oriented field research, analysis and recommendations.
2. Strategic advice to the Minister and senior officials on urgent policy matters and institutional structures.
3. Networking and coordination with other external agencies and donors contributing to environmental policy development in Cambodia.

IV. A preliminary Assessment of the Program

A. Reaching a Starting Point for Policy Making: The Special Case of Cambodia

Any assessment of IDRC's environment program in Cambodia must be predicated on the fundamental reality that Cambodia is a unique case. It is a historical fact that the late 1970's witnessed the absolute destruction of the country's institutions and the murder or exodus of nearly all its educated and trained citizens. At present there is an extreme paucity of managerial, organizational, and technical skills in the country. There is only a tiny number of trained Cambodian scientists in the country in any discipline, including environmental sciences. This, in turn, means that the capacity to undertake environment or development research is practically nil. For IDRC this means that finding experienced Cambodian counterparts in the public or private sectors is extremely difficult. If Cambodia is to undertake development research that will lead -- eventually -- to effective environmental policy making, the capacity to do so will need to be strengthened at the outset, starting with relatively untrained personnel.

This has been the operative reality for the IDRC environment program for the last two years. Has the program addressed this situation and caused some positive movement in the direction of building indigenous development research capacities through supporting the development of environmental planning, management and policy-making?

The answer is yes. But in explaining this affirmative response, it is necessary to compare a research and policy support program such as IDRC's in Cambodia to other countries where donor agencies traditionally work. In most 'developing' countries of the world such as Vietnam, Bangladesh, Tanzania, or Ghana, for example, at least a modicum of indigenous capacity already exists. Trained scientists, bureaucrats familiar with policy-making, researchers and experienced project managers are already in place. The conventional mode of donor assistance, therefore, is to couple external expertise in the form of advisors or consultants with host-country counterparts. The result of these partnerships are products such as legislation, research reports, policy 'packages' or reforms, or field-level project activities. As these products are achieved, the foreign experts' role is diminished to the point of nonexistence, and the development process moves on.

There are at least two fundamental stages that precede this traditional development assistance approach in a country such as Cambodia. The first is developing the most rudimentary physical and institutional requirements to even begin a program. Hence the laborious attention that the IDRC has given to such basic tasks as the procurement of office furniture, computers, and telephones. Similarly, language training, basic technical training, and establishment of simple information management systems was also a priority.

Secondly, for policy research and policy-making capacities to be in place, there must be a basic understanding of what policies mean and how information management, research and analysis lead to policy-making. The sequential and iterative process of linking research to the development of a national policy framework is an essential one. It can not be taken for granted, particularly in a country like Cambodia. Without that fundamental understanding, the traditional foreign assistance approach is ineffective.

The IDRC program in Cambodia has been fully cognizant of this situation since its inception. A review of early documents and interviews with the IDRC staff in Cambodia underscores the conscious decision to develop a program that is responsive to this daunting institutional situation. When IDRC was invited by the government of Cambodia to assist the Department of Wildlife Protection and then to provide general support to the MOE, there was a deliberate strategy to meet the elementary requirements for initiating a policy support program. Procurement of equipment, language training, and the very difficult task of developing a basic understanding of policies in a new ministry are not traditional IDRC program objectives. But they were absolutely necessary preconditions for developing a successful environmental policy research and policy advisory program in Cambodia.

Recent interviews with the Minister of Environment and some of his senior staff have validated that IDRC has been successful in helping the Ministry meet these conditions. The Ministry is now functioning satisfactorily in terms of its infrastructure and equipment (it has a basic inventory of telephones, furniture, etc. much of which was provided by UNDP some months after the initial IDRC contributions were made). Language and technical training programs are in place and skills have improved markedly from two years ago. A recognition and appreciation for the policy making process is beginning to take hold among the top echelons of the Ministry.

B. Developing Research Capacities Through Projects

This is just the beginning, however. One could argue that the tasks ahead are even greater in magnitude. Before effective mechanisms are in place to develop a national environmental research and policy-making process and a concomitant legislative framework, other constraints must be addressed. In an ideal situation the development of policies,



Figure 3: MOE and Department of Fisheries staff surveying wetland habitat.

legislation and regulations is a relatively ordered affair. It entails a process, a sequence of events where one stage builds on the foundations of the previous work. A problem is identified, information is gathered and analyzed, options are considered, and a program response is developed to address the problem. This response either reflects an existing policy or is used to feed back into the policy development process. The promulgation of legislation or the development of regulations is an extension of the established policy.

The absence of information, the lack of defined authority, and the political exigency of being required to react to a problem, all conspire to produce the reverse of the ideal process. The result is a dysfunctional process in which law-making precedes policy-making. Legislation and regulations are the first responses to a problem, in the absence of a broader policy that defines the government's position and intentions. The policy is not defined because the

information is not at hand. The legislation becomes the vehicle to define or expand the agency's authority, not to address comprehensively the problem at hand.

Mindful of this problem, the IDRC environment program over the last year has made a concerted effort to support the development of information gathering, analytic skills, and policy research capacities within the Ministry. Its primary vehicle for achieving this goal has been through a number of "in-house" and field-level project activities. In developing the information management capacity of the Ministry, IDRC established the documentation centre. A computerized cataloguing/retrieval system is now in place, giving Ministry staff access to over 3,000 books and documents, as well as all of the UNCED Agenda 21 documentation on CD-ROM.

At the field level, IDRC-supported projects entail multiple objectives including building the technical and research capacity of government staff, developing data bases for information management, offering input into the policy formulation process through developing technical and policy options, and establishing institutional linkages (all projects include staff from other relevant ministries and other levels of government). For example, the ongoing Battambang Engineered

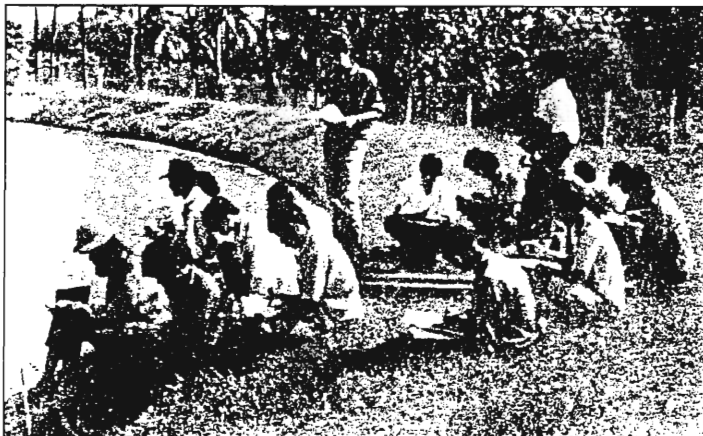


Figure 4: Training sessions for staff of experimental wastewater/wetland facility in Battambang.

Wetland Project is a research project that involves the implementation of an engineered wastewater wetland system in Battambang. It is advancing research capacities among MOE staff on a number of issues relating to appropriate technology development and diffusion. One of the most important components of this project is an examination of the sociological context in which a particular technology is developed and implemented. This approach has already shown promise in terms of establishing a necessary baseline of field-level information that can advance the replication of similar technological interventions in other parts of the country. Issues such as jurisdictional authority and joint management have been raised as well as essentially pragmatic concerns of devising ways for the government to meet long-term operational and maintenance costs.

Another key IDRC program project activity that has considerable promise is the Baset Integrated Conservation and Development Project, co-funded with UNDP. Although still in the formative stages, this research project has already proven to be an innovative and integrated pilot study in environmentally sustainable resource utilization to fulfill the socio-economic needs of the community in a wetland environment. It has begun to examine the relations between local communities and conservation techniques in a fisheries and forestry context. Prospects for traditional methods of land, forest and water management are being explored through a long-term assessment of the needs and priorities of the local community.

Cambodia has some of the last remaining pristine mangrove forests on the Gulf of Thailand, a critical resource for biodiversity conservation and as a recruitment reserve for artisanal and commercial fisheries in the gulf. With co-funding from UNDP, the IDRC program supported a preliminary socio-economic and ecological survey of the proposed RAMSAR site in Koh Kong Province, providing both practical project management training to MOE staff, and a quality example of the value of research activities. The latter took the form of a documented case study with issues and clear policy recommendations regarding the production of charcoal for export, the encroachment of intensive shrimp farming from Thailand, and livelihood alternatives for local people.



Figure 5: Transect surveys in severely degraded mangrove forests in Koh Kong Province, near the Thai border..

These three projects, along with others assisted by IDRC, are building the technical capacity of the Ministry staff. In addition, they are presenting and framing the tangible issues related to policy development and decision-making. For the first time, the Minister of Environment can discuss the results and implications of a technical report with his colleagues in the Ministry of Agriculture or Public Works. A process that encompasses language training and technical skills at one end is designed to result in the Council of Ministers deliberating (in the case of the Baset project) legislation on establishing a protected area management regime. All obstacles that will certainly be encountered in between serve as learning experiences for MOE and the Government as a whole, through their exposure to the processes of environmental management at all levels.

In the case of the Baset project, the Council of Ministers will be deliberating legislation derived from a solid base of information and a consideration of policy options. The legislative and executive bodies of the government should not be under the illusion that legislation in the first instance will solve the problem. This will be more readily accomplished by:

- i) development of a workable institutional framework for lake management with government agencies, as well as private sector, non-governmental organizations, and communities;
- ii) collection and analysis of basic information;
- iii) development of policies and programs; and
- iv) if and when necessary, the formulation of appropriate legislation that takes into account the roles and responsibilities of the implicated agencies.

C. Attracting Donor Support

IDRC attempts to develop program partnerships with other major players, as appropriate, to avoid duplication and to focus efforts on key issues. A particular strategic element in the Environment program in Cambodia has been to negotiate with other donors for the financing of particular elements of the program. This allows IDRC greater flexibility in allocation of

its own limited financial resources, facilitates a greater measure of donor coordination, and allows other donors to build on an already established base. This approach will be particularly important in the future as USAID, UNDP, and other major donors consider policy and program initiatives with the MOE.

Project	Donor	Amount (USD)
EIA Framework	ADB	550,000
Advisory Council/Regulatory Framework	USAID	40,000 (approx.)
Baset & Mangrove Projects	UNDP	15,000
Planning and Management Training	CIDA	2,000

The final section of this report (Options and Recommendations) begins with a review of other significant donor activities related to the environment, and the potential for IDRC collaboration.

Facilitated by the presence of the Ministry of the Environmental Policy Advisor, the following additional funding has been attracted to the IDRC program in MOE:

D. General Assessment

As stated in the introduction, this assessment is not predicated on a structured evaluation. The following general comments, however, are based on the author's first hand knowledge of the IDRC Environmental Program gained over the past two years. It also benefits from numerous interviews and discussions with a wide range of people who are familiar with the program.

Given the difficult circumstances of working in Cambodia and the relatively modest level of financial support, the program has achieved a great deal. As the section "A" above and the two appendices illustrate, the program has many specific and concrete accomplishments. While the program has just begun to meet its objectives and much more needs to be undertaken, it has been very much of a success.

A policy support initiative is extremely difficult to measure or, indeed, evaluate, especially in its formative stages. Many of the objectives of such a policy-oriented program are elusive in terms of devising measurable criteria and objective indicators.

Fundamental indicators for this program do exist, however. Generally speaking these include the following:

- First and foremost is the fact that the Minister of Environment continues to have a high regard for the program and endorses it wholeheartedly.
- The IDRC program has thrived in spite of a host of inevitable difficulties and plays a central, supportive role in the Ministry of Environment's fledgling environmental policy-making and institution-building processes.
- The Environmental Policy Advisor has increasingly played a role in terms of coordinating and screening external demands and requests that are being imposed on the Minister and his staff.

- There are a number of important benchmark accomplishments (outlined above and in the two annexes) in line with the program's objectives that have already been achieved.
- The program has earned a solid and positive reputation based on its effectiveness, responsiveness and discretion. Representatives of many donor organizations (including USAID, the World Bank, and the UNDP), non-governmental organizations (both national and international) and, most importantly, a variety of individuals in the Cambodian government agencies have spoken well of this program.

At the same time, a number of difficulties should be expected in devising and managing such a broad-based policy support program in Cambodia, even under the best of circumstances. Nevertheless, some of these could be circumvented if a substantially greater investment of planning and support resources were made available.

IDRC has a wide range of experience in other countries in environmental issues at the policy and technical levels, natural resource management, information management, etc. This accumulated knowledge is not being fully taken advantage of in the Cambodian environment program. The program needs to be part of a wider information and support network, related in the first instance to IDRC internally. This could include greater linkage with other IDRC program officers, using various networks that have been previously established with other research institutions, and better access to IDRC's library and considerable data base.

broader tech support from IDRC

In the same vein, the environment program could benefit from greater linkages to a regional context. A start has been made in that direction with contacts being made, with agencies concerned with regional environmental issues: e.g., the Mekong Region Law Centre, the Thailand Development Research Institute, and the World Resources Institute. IDRC is the only agency currently working with MOE on the development of the environmental policy framework. This puts considerable responsibility on IDRC to ensure that the overall direction that the advisory service provides is appropriate. The linkages, internally and regionally, would serve to reduce the isolation of the IDRC environment program and provide a wider perspective in the promotion of environmental management options.

Because the IDRC environment program is broad based, its effectiveness is limited to the amount of time that Policy Advisor can devote to any one issue. In short, the Environmental Policy Advisor is stretched thin. The environment program cannot continue to take on additional responsibilities or activities without additional resources being made available. This argues strongly for IDRC to collaborate with donors who may be able to provide support resources. This has been the case with short-term (five month) support given by USAID to IDRC's program. More strategically, IDRC could examine ways to relieve the EPA from some of the direct project management activities to allow more time for program development and coordination.

How about narrowing down?

The environment portfolio is gaining a higher profile in Cambodia, as the country is of increasing interest to people and organizations from around the world. Consequently, demands are increasing for information from those with on-the-ground experience. This is the proverbial double-edged sword in that opportunities become more apparent, but considerable time is required to develop them. Many of these interruptions have little or no

value to the program. The IDRC environment program should evaluate these opportunities very selectively to ensure that the focus that the program has developed is not lost.

Cambodia is just beginning to emerge from twenty years of war and isolation. The pressures to rapidly develop economically are increasingly competing with more long-term environmental imperatives. The overwhelming poverty of the general population, the stubborn instability and acrimony that defines Cambodian politics, and the pervasive, undermining force of corruption all threaten to undo the progress of the past two years.

It is one thing to begin to develop information management systems, institutional capacities, and a technical training program. It is a much more difficult task to establish the foundations on which an effective national-level policy and legal framework can be devised. It is only over the next two to three years that real success for this program can be realized. While there is a positive foundation to build on, the greater challenge lies ahead.

V. Conclusions: Options and Recommendations

This report is designed to map out some options and a very preliminary set of recommendations for the IDRC Cambodia environment program's future directions. That is, of course, an internal matter for IDRC management and program officers to determine based on such considerations as their corporate strategy, the objective framework of the IDRC Southeast Asia Program, and budgetary constraints. What follows, then, assumes that IDRC will choose to continue to play some significant role in the on-going development of capacity for sustainable natural resource management in Cambodia. Options are presented for consideration based on a review of the accomplishments of the program, and on an identification of the constraints, opportunities, and needs of the Ministry of Environment specifically.

A. Linking with other Donors: Moving Beyond the Usual Rhetoric

The range of these options is influenced by an understanding of the role IDRC has played in supporting development research in Cambodia relative to others in the donor community. Certain donors will be providing substantially more technical assistance in the environmental sector in Cambodia in the future. UNDP has completed the first phase of an environment support program (the Cambodia Environment Advisory Team -- CEAT) which experienced considerable problems related to its internal management and the difficulties of working in Cambodia over the past two and a half years. UNDP is in the final stages of planning a second initiative (Environment Technical Advisory Project) that will concentrate on information, education, and demonstration projects. The Asian Development Bank, the Danish Government, and USAID are also planning substantial environmental projects in Cambodia.

The combined efforts of UNDP and USAID, the two major international agencies committed at present to large levels of financial assistance for environmental policy and research, can only provide limited direct support to policy development. The areas of intervention in the policy arena for these two organizations are to be developed in the months ahead. It is clear, however, that there remains considerable latitude for IDRC to continue to be central to policy research and the ensuing deliberations and policy formulation.

The combination of interventions (in policy research and formulation) of these three donor agencies is likely to be the most formidable external influence shaping Cambodia's environmental programming for years to come. Given the Government of Cambodia's receptivity to, and style of management of, international assistance and advice, it is incumbent upon the donors to coordinate and complement their assistance to the maximum extent possible. IDRC has a leadership role to play in the environmental policy arena for the foreseeable future based on the program's important achievements to date, the experience that it has accumulated, and the mutual respect it has fostered between the MOE and the program staff.

Whatever direction donor collaboration takes, a donor "roundtable" forum should be established so that the relative newcomers to this arena can become more cognizant of each others' activities, programs can be coordinated when appropriate, and the important concern of MOE's absorptive capacity for external support can be addressed. This approach is increasingly being developed in other countries such as the Philippines (the Philippine Development Forum) and the more informal, but still effective, donor working group on community forestry in Nepal. Again, given IDRC's record and experience, the Environment Program and the Environmental Policy Advisor in particular, should play a central role in this approach.

At the time of this writing, USAID/Cambodia is considering the option of developing a long-term (five year) program to support environmental policy-making, public institution development, and private-sector, capacity-building in advocacy and implementation. The importance of linking with the IDRC's environment program has been highlighted by USAID personnel, and by some of the organizations preparing to respond, as a consortium, to USAID's forthcoming "request for applications". This activity will build upon the IDRC program's achievements and approach, possibly through formal linkages, but certainly through on-going collaboration.

WRI, particularly, as a potential policy-supporting institution in the forthcoming USAID environmental program in Cambodia, is exploring options for those linkages. While roles and other issues need careful consideration, the potential synergy and complementarity of this approach is exciting. WRI and IDRC have worked together well on an informal basis in Cambodia over the course of the past two years, and have much to share with the MOE and other bodies in terms of joint policy research development.

A particularly important and difficult challenge worth exploring is jointly supporting indigenous Cambodian capacities to conduct environmental policy research both within the government and the nascent private sector of NGOs and academia. IDRC should consider what kinds of approaches could be developed in the future to build bridges between the public and private sector in information sharing, the conducting of environmental policy research, and eventually the formulation and implementation of a policy framework. IDRC should consider what kinds of approaches and groundwork should be initiated to begin to build viable bridges between the public and private sector (including the rapidly developing business community) in information sharing, policy research, and project execution. This will strengthen prospects for the government and the non-governmental sectors in sharing in the responsibility of formulating and implementing environmental policies.

B. A Range of Other Options

The following options are not necessarily mutually exclusive. The divisions are largely artificial and in the end, it is reasonable to assume that the final program will be a mix of several options. For example, it would not be productive to undertake purely operational/technical assistance projects (Option 3) without linking it to a larger research agenda (Option 1). Conversely, building the development research capacity must necessarily incorporate an operational element to it (learning through doing) if it is to have lasting relevance in the Cambodian context.

Nevertheless, IDRC needs to prioritize among the following options (and others that it devises on its own) so as to develop a tighter focus at this important juncture in the evolution of its environment program. This prioritization and strategic planning will help the program staff to concentrate on what it can best deliver to enhance the capacity of the Cambodians to undertake development research and policy formulation.

1. Development of MOE Research Agenda

- i) Maintain or expand the current approach of broad-based research through project level activities already in place such as the Baset Community Based Resource Management project, Battambang Wastewater Management project, etc.
- ii) Focus on a particular thematic cluster of projects; e.g., community-based resource management or environmental economics.
- iii) Concentrate support on the creation and strengthening of a Research Unit within the MOE.
- iv) Disengage from project-research approaches and take a more conventional pure research approach based on desk studies, statistical analyses, and document preparation.

2. Field-level Projects Orientation

This category represents the other end of the spectrum from research and would focus on pure technical assistance in implementing natural resource and environmental management projects in natural resources management (fisheries, forestry, agriculture) or in 'brown' issues such as waste water treatment, urban planning, and air and water pollution control.

3. Concentrate on Management Support for MOE

This category includes all those activities that are involved in the coordination and management role of the EPA within MOE. This category focuses on donor coordination, advising on proposals (such as submissions to the International Committee for the Reconstruction of Cambodia), building capacity for internal planning, ministerial information management, and management training. As the number of individuals and the frequency of their visits to MOE steadily increases, this coordinating and management function of the EPA could become a full-time occupation.

4. Linkages to Regional Context

There have already been some IDRC environment program activities in which contacts have been established with regional institutions and activities in Southeast Asia such as The Asia Foundation's Mekong Region Law Centre, and the Policy Support for Mainland Southeast Asia in Transition program sponsored by WRI, TDRI, and Chiangmai University. These linkages not only ensure that the IDRC environment program is more regionally integrated, but that it provides a stepping stone for MOE to make contacts with these institutions. The MOE staff who participate in these exercises benefit from the lessons learned by other countries. Regional workshops, training courses, study tours and other appropriate regional-level activities should be increasingly considered to take advantage of lessons learned from other countries, personal and institutional contacts, and programmatic approaches.

5. Decentralization of Environmental Management

Natural resources are often not effectively managed in the national capital by the central government. The decentralization of resource management functions from central governments to lower levels of jurisdiction often results in a more effective management regime. Local-level based tenurial regimes and a general strategy to devolve authority and concomitant responsibilities in resource use, management, and benefit distribution to communities is a critical strategy for all countries to consider. The ways and means of achieving this in Cambodia will require considerable research on how national-level policies can be practically translated to the provincial, district and community levels.

6. Promotion of Environmental Management in Key Central Agencies and Line Ministries

Other Ministries such as Agriculture and Rural Development obviously play key roles in the management of natural resources. At the macro-policy level, this is also true for powerful, central planning agencies such as Cambodia Development Committee. IDRC could capitalize on some of the institutional linkages that have been established through its activities in the Ministry of Rural Development, the Integrated Pest Management project in the Ministry of Agriculture, and the MOE environment program, to promote environmental consideration. In particular, IDRC could be instrumental in supporting the nascent high-level, inter-ministerial National Environment Steering Committee (whose TORs and mandate were written by the EPA) chaired by the First Prime Minister and co-chaired by the Minister of Environment.

Support could be provided through building the technical and research capacity of the Technical Secretariat which will be composed of senior staff, three permanent positions from the MOE, and another three on a rotating basis from other ministries represented on the Committee.

7. Development of National-level Environmental Action Plan and Strategies

To date there is still no national-level strategy or action plan for the environment in place. The Prime Minister requested MOE in December 1994, to produce such a plan. The UNDP has produced a State of Environment report which is an incomplete collection of primary data, but which could serve as a basis for a national environmental profile and a subsequent

assessment. Further to the strategy is the formulation of the action plan with provision for a monitoring and evaluation system for assessing progress made in implementing the plan. This could be linked with support to the National Environment Steering Committee which is mandated to review such planning documents; i.e., the Technical Secretariat could be tasked with the production of the report with support from IDRC.

8. Work with Private Sector - Academia, NGOs, Business

IDRC already has linkages with the private sector, particularly with international NGOs concerned with resource management issues and with elements of the business community interested in promoting the Business Environment Advisory Council. IDRC's experience with resource economics and the Business Council for Sustainable Development could be used effectively in both these regards.

Annex I:

A Generic Framework for Assessing the EPA Program

IDRC devised a generic framework of activities that represents a standard approach to build up the policy-making and institutional structures of the MOE. This framework is shown in **bold type**. Within this “ideal” framework, the actual activities that have been undertaken by IDRC’s environment program are shown in regular type.

1. Institutional Capacity Building

a) Provision of material resources support

- purchase of essential items such a telephone line, fax machine, photocopier, computer, overhead and slide projector (for ongoing training sessions) as well as basic office furniture - chairs, filing cabinets, fans, white boards and some supplies - for the Minister, Vice-Minister, and two senior staff.

b) Human resource development

i) technical training

- participation in an intensive technical training session organized by the UNDP environment project.
- technical training at project level (refer to Annex II for list of projects) in areas ecological monitoring and surveys, Rapid Rural Appraisal and sociological methodology, Waste Water Management, personnel management, information management.

ii) research capacity

- all projects have a strong research element built in, particularly Mekong Development Research Network, Battambang Wastewater Management, and Baset Community-Based Resource Management

iii) language training

- very few of the Ministry staff could speak, write or read English in May, 1993. IDRC has provided English courses to approximately 20 MOE staff

c) Institutional development

i) establish overall mandate for Ministry

- instrumental in developing organization chart, functions and mandate for the Ministry. This continues to be a preoccupation as the legislation for the Ministry has not been formally established or approved.

ii) develop information management systems

- establishment of MOE library, non-computerized GIS system in Department Land Use Planning

iii) devise implementation plan

- collaborate with AIDAB on formulation of medium-term implementation plan

iv) set up monitoring and evaluation system

- to be developed

2. Development of Policy and Legal Framework

a) establish policy framework

environmental policies cannot be developed in absence of information or institutional framework. The ground work for future policy development has been established through provision of advise on relationship between information, policy development and legislation, as well as developing inter-ministerial mechanisms for policy development.

- b) develop legislative framework**
 - provide services of environmental lawyer for one month to provide MOE on strategic options for legislative development.
 - provide input and coordinate advice from other donors in development of umbrella legislation, and various decrees and sub-decrees.
- c) structuring research agenda**
 - work with senior staff on on-going basis to develop MOE program priorities.
- d) develop feed-back mechanisms (research-policy)**
 - through selective research project interventions, use results and issues as test cases for feed-back into policy development.

3. Building Linkages

- a) interministerial/provincial linkages**
 - concentration on developing linkages at technical level through projects with Department of Fisheries, Forestry, Hydrology, Wildlife Protection Office, Ministries of Tourism, Industry, etc.
 - develop TORs and mandate for inter-ministerial National Environment Steering Committee
 - provide representation to provincial Governors on establishment of MOE presence.
- b) private-sector linkages**
 - initiate project to establish Business Environment Advisory Council to develop regulatory framework for pollution control.
 - establish close working relationship with a number of private sector companies.
- c) donor coordination**
 - coordinate IDRC activities with other donors active in environmental management in Cambodia, e.g. UNDP, IUCN, AWB, etc.
 - provide information, background, briefings to numerous donors and NGOs.
- d) regional linkages**
 - undertake National Environment Action Plan for Viet Nam.
 - arrange Thai MOSTE delegation visit.
 - attend and make presentations at various regional conferences.

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d) regional linkages

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- arrange Thai MOSTE delegation visit.
- attend and make presentations at various regional conferences.

Annex II

Summary of Projects in MOE assisted by IDRC

Project Name:	Environmental Policy Advisor
Status:	Project is approved and funded by IDRC; provision of environmental policy advisor to MOE for policy and program advice, work planning, project development, donor liaison and coordination, limited project implementation costs.
Start Date:	ongoing since May, 1993.
Length of Project:	anticipated to be 2 years from July, 1994
Personnel:	Environmental Policy Advisor IDRC Environment Program Assistant
Associated Activities:	<ul style="list-style-type: none"> - Support to Baset Lake, Protected Areas, Battambang Wetland, EIA framework, Mangrove/CZM - IDRC personnel supervision - Management Training Workshops - Donor liaison - Regional Activities: Formulation of Vietnam NEAP
Project Name:	Planning and Management Training
Status:	An initial workshop was held in the second quarter of 1994 for 25 senior MOE staff; discussions are being held to arrange for a series of follow-up workshops at the bureau level to focus on development of objectives, strategies and workplans.
Start Date:	First quarter, 1995
Length of Project:	3 months
Personnel:	Management Training Specialist 2 MOE Staff (Dept. of Planning) IDRC Environmental Policy Advisor IDRC Environment Program Assistant USAID sponsored environmental lawyer 2 EC sponsored experts (Pollution Control and Natural Resource Management)
Project Name:	Strengthening Environmental Impact Assessment Procedures and Capabilities/ADB funded TA
Status:	Approved by ADB in February 1995.
Start Date:	April, 1995
Length of Project:	2 years
Personnel:	Senior EIA specialist (0.5 years) Regional EIA specialist (2 years) IDRC Environment Policy Advisor (2 months) IDRC Regional Program Officer (as required) MOE Staff (to be identified)

- Collaborating Agencies:** Selected line ministries, central agencies, provincial governments (to be identified)
- Project Name:** **Battambang Waste Water Management Project**
- Status:** Project proposal approved; project personnel selected and implementation on-going
- Start Date:** September, 1994
- Length of Project:** 2 years
- Personnel:** Wetland Technologist (2 years)
Sociologist (one year)
IDRC Environment Program Assistant (as required)
IDRC Environmental Policy Advisor (as required)
MOE Staff (Dept. Pollution Control; Dept. Nature Cons.)
- Collaborating Agencies:** Public Works
Province of Battambang
- Project Name:** **Baset Lake Community Based Resource Management**
- Status:** IDRC has undertaken the preliminary surveys in conjunction with Wildlife Protection Office, Ministry of Agriculture. IDRC and UNDP are co-funding the first phase of the project and funding will be sought from IDRC and other sources for continuation of the project in April, 1995
- Start Date:** October, 1994
- Length of Project:** 6 months (UNDP funds);
- Personnel:** IDRC Sociologist (6 months)
IDRC Ecologist (6 months)
IDRC Community Development Specialist (9 months)
IDRC Environmental Policy Advisor (as required)
6 MOE staff from Dept. Nature Conservation
- Collaborating Agencies:** Fisheries, provincial government, NGOs
- Project Name:** **Mangrove Forest Resources and Local Communities**
- Status:** On-going, co-funded by IDRC and UNDP
- Start Date:** September, 1994
- Personnel:** IDRC Community Development/Resource Management Specialist
4 MOE staff from Dept. Nature Conservation
- Collaborating Agencies:** Provincial Governments, NGOs
- Project Name:** **Development of Ecotourism Strategy**
- Status:** On-going, Baset Lake case study
- Start Date:** January, 1995
- Length of Project:** 4-6 months
- Personnel:** IDRC Eco-Tourism Planner
MOE staff
- Collaborating Agencies:** Ministry of Tourism

Project Name: Mekong Development Research Network (MDRN)
Status: On-going
Start Date: September, 1994
Personnel: IDRC Environment Program Assistant (5 months)
 Director of Department Environmental Planning
 Vice-Director of Department of Environmental Planning
 Chief of Research Office
 MOE Research Team (5 staff, to be identified)
 MOE Field Team (as needed, to be identified)

Project Name: MOE Library
Status: Project is approved and funded by IDRC.
Start Date: April 1994
Length of Project: 1 year
Personnel: IDRC Environment Program Assistant
 2 MOE Staff from Dept. Education and Communications
Collaborating Agencies: NGOs, other resource Ministries

Project Name: MOE Human Resource Database
Status: Project is approved and funded by IDRC
Start Date: January, 1994
Length of Project: 1.3 years (March, 1995)
Personnel: Environment Program Assistant
 Chief of Personnel Office
 1 MOE staff from each Department (as required)